TEACHERS ’RETIREMENT BOARD

REGULAR MEETING

SUBJECT: Funding and Benefit Workshop — ITEM NUMBER: 4

ATTACHMENT(S): 5

ACTION: X — MEETING DATE: June 3, 1998

INFORMATION: ______ — PRESENTER: Ms. DuCray-Morrill

I. Plan Design Proposal

Introduction

The material provided in this agenda item is the same or similar to the information provided to the Board at the April and May, 1998 Board meetings. Staff, however, will provide updated and additional information at the June 3, 1998 Board meeting regarding:

- Funding History, including Elder Full Funding provisions
- Benefit History
- Status of Budget Discussions, including May revisions

At the April 2, 1998 and May 7, 1998 meetings of the Teachers' Retirement Board (Board), a comprehensive review of the current Defined Benefit Plan (DB Plan) and the adequacy levels of those benefits were updated and presented to the Board.

Summary

Staff identified potential weaknesses with the current plan and provided comparisons with other retirement system benefit levels as well as a comparison of contribution rates. No recommendations were made at that time and no action was taken; however, staff was directed to provide the Board with alternatives for improving the STRS DB Plan and to recommend appropriate funding to accomplish the alternatives. The following criteria, as directed by the Board, was taken into consideration in developing the alternatives.

- Provide alternatives for normal retirement age at both 60 and 65

- An adequate target replacement ratio should be between 80-85 percent

- Employees should share in the responsibility to attain the target replacement ratio

- A plan design should accomplish both retention and adequacy, if possible

The Board also requested that staff consider a Deferred Retirement Option Program (DROP) to achieve the above objectives as one alternative.

- Demonstrate at least two specific DROP proposals for the Board's consideration:
  - one that is cost neutral and one that has an increased cost with an increased benefit.

Staff has conducted considerable research and analysis in an effort to accomplish the above direction. In addition, staff has updated, revised and included several of the matrices from the April and May, 1998, Board meetings for the Board's information and reference. Attachments 1-5.

Attachment 1 is Matrix of Cost of proposed Benefit Improvements.

Attachment 2 is Matrix of Increased Benefit.

Attachment 3 is PERS Comparison of Tier I, Modified Tier I and Tier II.

Attachment 4 is STRS/PERS Comparison

Attachment 5 is Outline of Current Funding Sources and Variables.

Following is a discussion of the methodology used to arrive at conclusions and recommendations for the Board's consideration and action.

Discussion

As we have discussed previously, there has been considerable comparison of benefits between those provided by PERS and those provided by STRS. STRS is often criticized for its inferior benefit when compared to the PERS Tier 1 or school classified members who essentially have the Tier 1 level of benefits. It should be noted, however, that the current PERS plan for state miscellaneous members, Tier II, is a reduced level of benefits particularly if utilized as a defined benefit plan for a career employee. Therefore, negotiations are underway to provide an improved level of benefits to state miscellaneous members. This proposed plan is referred to as the Modified First Tier (MFT).

Staff has prepared two comparison charts for the Board that provide a comprehensive comparison between the STRS DB Plan and PERS Tier I, Tier II and the MFT (Attachments 3 and 4). You will see that the MFT is very similar to the current STRS DB Plan with a couple of notable differences, particularly the cost-of-living adjustment (COLA). The MFT has a two percent compounded COLA consistent with the PERS Tier I as opposed to the STRS two percent <u>simple</u> COLA.

In addition, the MFT includes Social Security coverage as does both Tiers I and II. While it is true that the members and employers pay an additional 6.2 percent of salary for the Social Security coverage, the increased benefits provided by this coverage cannot be ignored in the comparisons. To maintain their pre-retirement standard of living, it is expected that most individuals will draw retirement benefits from the following sources: employer-provided retirement plan; personal savings; and Social Security. These elements are commonly referred to as the "three-legged stool" of economic security. Since STRS is not coordinated with Social Security, it is immediately apparent that STRS members are at a serious disadvantage and this void must be made up from the remaining two sources. This puts additional pressure on STRS, the member and the employer to assume responsibility for the deficit. As a result, the benefits provided from Social Security are appropriate to utilize when comparing the level of benefits provided by STRS to other retirement systems.

<u>Normal Retirement Age at 60 or 65</u>

Federal law defines "normal retirement age" as the age specified in the plan, but no later than age 65 or the fifth anniversary of the participant's date of initial plan participation, whichever is later.

The normal retirement age in most private sector plans is 65. Age 65 has been selected by most plans because traditionally this was the age at which full Social Security benefits were provided. In 1983, the normal retirement age for Social Security was increased from age 65 to age 67 depending on a person's date of birth. However, when an occupation's full career is considered to be less than age 65, such as Fire and Police, a plan may provide for a normal retirement age that is less than 65.

Most public retirement plans for non-safety employees are designed with normal retirement between 60 and 65 years of age. Retirement plans serving Fire and Police, generally set the normal retirement age between 50 and 55 years of age. Five statewide teacher retirement systems not covered by Social Security (Colorado, Illinois, Louisiana, Ohio, and Texas) all have age 60 as the normal retirement age. The average age at retirement for these five systems is 60 years of age with 26 years of service credit. The average normal retirement age of four statewide teacher retirement systems that do contribute to Social Security (Arizona, New Mexico, Oregon, and Washington) is 62. The average age at retirement for these four systems is 58 years of age with 24 years of service credit. Attachment 6 provides the specific data for each system.

Over the past 20 years, STRS' demographics have shown the average age at retirement has remained constant at 61. It is important to note that many of the client and employer advisory committee members have expressed concern with raising the normal retirement age, thereby forcing teachers to remain in the classroom longer. Increasing the normal retirement age has the potential of reducing the effectiveness and productivity of the classroom teachers.

Taking Social Security coverage, personal savings and investments into consideration, a pension plan should provide an adequate replacement income for persons retiring after a full career. Since STRS members do not pay into the Social Security system, the Social Security retirement age is not a requirement when considering the normal retirement age for STRS. STRS' experience indicates that maintaining STRS' normal retirement age at 60 is appropriate for California educators.

Target Replacement Ratio and Adequacy

Retirement adequacy is defined, as the amount of benefit needed to continue the pre-retirement standard of living. Replacement ratios are computed by dividing the annual retirement benefit by the final year's salary. During retirement it is expected that work related expenses such as clothing, commuting cost, etc., would be reduced or eliminated. Therefore, the actual replacement ratio necessary to continue the pre-retirement standard of living is generally less than 100 percent of the final year's salary.

The income requirement for an individual who retires at age 60 can be higher than anticipated. Individuals who retire at age 60 do not yet qualify for Medicare, and many STRS members do not have employer-provided healthcare coverage. In addition, there is a growing segment of our population experiencing a phenomenon known as "eldercare". Eldercare requires adult children to care for their parents and/or elderly relatives. This situation translates into higher medical and assisted living and/or rest home costs. To compensate for these extra costs during retirement, the retirees must purchase some type of private healthcare coverage for themselves and pay any additional cost they incur for care of their parents.

The STRS defined benefit program was implemented over twenty-five years ago. The plan provides a retirement benefit formula of 2 percent of final compensation for each year of service credit at normal retirement age (60). Since STRS uses the highest average annual compensation during any period of three consecutive years for calculating the retirement allowance, the replacement ratio for the average STRS member retiring at age 60 is approximately 48 percent of the final year's covered compensation. The replacement ratio at age 65 for the average STRS member is approximately 57 percent of the final year's covered compensation. Since STRS members, for the most part, do not contribute to the Social Security system, are these replacement ratios adequate to maintain the member's pre-retirement standard of living?

To answer the above question, staff in conjunction with STRS' consulting actuary and benefits consultant undertook an extensive search for published studies on appropriate replacement ratios for teachers. No such study has been identified. The majority of data available studies the retirement needs and adequacy of private sector employees at age 65, including Social Security benefits. This is not directly analogous in considering an appropriate target replacement ratio for CalSTRS and public school teachers.

During the November, 1997, meeting of the Teachers' Retirement Board, the results of STRS retirement study were presented. A brief summary of this study was reviewed at the April 1998 meeting. The retirement plan study used target replacement ratios from a nationwide survey of private sector retirement plans coordinated with Social Security conducted in 1993 by Georgia State University (GSU) as the basis of comparison to the current STRS benefits.

According to the GSU study, an adequate replacement ratio at age 65 ranges from 76 percent to 85 percent, depending on the level of the final year's compensation at retirement. The study assumes that an individual who retires at age 60 will supplement retirement income with a part-time job, health care insurance, etc. Since California educators are subject to an earnings limitation for teaching in public schools in California after retirement, meaningful supplemental income in teaching may not be easily attained.

The benefits consultant has recommended that a replacement ratio within a range of 70 percent to 75 percent for age 60, and 80 percent to 85 percent for age 65 are appropriate targets for STRS. These targets take into consideration the member's responsibility to provide some portion of the income needed during retirement.

Using the assumptions stated above, Attachment 7 reflects the current average replacement ratios realized for the age 60 retiree to be 48.0 percent from STRS and 11.1 percent from the member deferred compensation savings for a total of 59.1 percent. The results for the age 65 retiree are 57.7 percent from STRS and 16.2 percent from the member for a total of 73.9 percent. Both of these results fall well below the 70-75 percent and 80-85 percent recommended targets respectively. To achieve the 85 percent level under the current program, a member would have to retire at age 65 with 35 years of service and have contributed to a 403(b) program every year of employment.

<u>Employees Share in the Responsibility to Attain Target Replacement Ratio</u>
As stated previously, retirement income is typically provided from the following sources: employer provided benefits, employee savings from deferred compensation plans, and Social Security. Since STRS is not coordinated with Social Security, it is immediately apparent that STRS members are at a disadvantage. The average STRS DB Plan member must be prepared to make-up the difference for the missing third "leg".

How should the portion of the retirement income represented by the missing third leg get replaced? Contributions to the STRS Defined Benefit Plan are currently split equally between the employer and employee (8 percent of covered payroll each). An additional 3 percent of pay is assumed to be deferred by the employee to a deferred compensation plan over a teaching career for a total of 11 percent of members' pre-retirement income. In addition, many of STRS members must purchase their own health and elder care coverage during retirement or rely on a spouse's coverage. It may be unreasonable to expect the employee to find more disposable income to contribute toward retirement.

Among western states not coordinated with Social Security, CalSTRS provides the lowest benefit, but also has the lowest employer contribution rate. This should not be interpreted to imply that STRS members are receiving less of a benefit than what their contributions fund. The current benefit is appropriate for the level of contributions paid by the employer and member. Nevertheless, the current benefit STRS members receive at retirement is still below what is adequate to maintain the pre-retirement standard of living. Using the benefit consultant's recommendation of a replacement ratio within a range of 70 percent to 75 percent at age 60, STRS is 15 percent below the target. Consequently, under the current DB plan, STRS members must either set aside more personal savings or reduce their expected post-retirement standard of living accordingly. If the current STRS DB plan does not provide an adequate benefit at normal retirement age, can the Board really expect this same plan to help retain members past normal retirement age of 60?

Retention

Currently, there is no incentive for STRS members to work past age 60 unlike PERS and other public and private sector retirement plans that encourage retirement after age 60.

In 1996, Governor Pete Wilson and the State Legislature set aside $771 million to help reduce the over-crowded classrooms in grades one and two, and either kindergarten or third grade. School districts were offered $650 per student for any class that did not exceed a 20:1 pupil/teacher ratio for the entire day.

Approximately 18,000 teachers were hired to support the class size reduction program during the 1996/97 school year, depleting substitute pools and teaching candidates from state university programs. One-fourth of those hired for class-size reduction were without teaching credentials and worked with emergency permits, many with no experience or training in teaching. Another 16,000 teachers will be needed to meet normal replacement and growth needs.

During 1997, the Governor expanded the class size reduction program to include a fourth grade level. This will require recruiting and hiring another 8,700 teachers.

Based on the current STRS membership demographics, plan experience indicates increased retirements over the next 10 years. The current average age of STRS' 364,000 members is 45. Of those 364,000 members, 40.4 percent are over the age of 50 and will be eligible for full retirement within the next 10 years. Another 18 percent of STRS' membership is between 45 and 49 years of age. According to the 1997 plan demographics, a total of 58.5 percent of STRS membership will be eligible for retirement in one form or another (early retirement with a reduced unmodified monthly allowance) by 2008. This phenomenon is known as the "Baby-Boomer" bulge or wave and is not unique to California.

Exacerbating the problem of increased rates of retirement among teachers, the Department of Finance has projected the number of students who will be attending public schools in California over the next 9 years is expected to increase by 852,000 new students, a growth rate of 15.5 percent. California is also expected to see a 35 percent jump in high school student population, the nation's largest increase and currently the fastest growing segment of the school population. With a 15.5 percent growth rate of K-12 student population, coupled with a potential retirement of 58.5 percent of STRS' current membership over the next ten years, from a policy perspective, retention and adequacy become a very important factor in any benefit enhancement decision.

Deferred Retirement Option Program (DROP)

The traditional DROP consists of freezing the member's monthly retirement allowance once the DROP period is entered, and a lump-sum distribution of the DROP account to the member once employment is terminated (retires) and/or the DROP period is concluded.

A DROP can be designed with variations in eligibility, contributions, and benefits. To keep DROP as cost effective as possible, numerous retirement systems require members to reach normal retirement age before becoming eligible to elect DROP. When eligible members elect DROP, the member's monthly retirement allowance is calculated using age, service credit and final compensation as if retirement occurred at the time the member enters the DROP period. The monthly benefit is paid into a DROP escrow account. DROP accounts are usually "nominal" accounts and all retirement fund assets are invested together. The "nominal" account is credited with the frozen unmodified monthly retirement allowance, and may be credited with employee contributions, and earned interest at a guaranteed interest rate or at a variable rate depending on how the DROP is designed.

Once the DROP period is over and/or the member terminates employment (retires), the member receives the balance of the nominal account in a lump sum or in the form of an annuity. The retirement benefit is then paid in two parts: the frozen monthly retirement allowance with accumulated cost-of-living adjustments and a lump sum or annuity from the DROP account.

One feature of a DROP is that employee contributions may be reduced or eliminated once the employee enters/begins the DROP period. Similarly, employer contributions may also be reduced or eliminated upon the member's entrance into the DROP period. However, the amounts of employer and employee contributions to the retirement plan directly impact the cost of a DROP.

Recommendation

Staff recommends that the Board:

- Retain normal retirement age at age 60
- Provide an adequate retirement benefit and establish a target replacement ratio of:
  85% at age 65 and 70-75% at age 60 including an assumption that
  members contribute 3% of earnings to a tax-deferred savings plan
- Modify benefits such that teachers will be encouraged to remain in teaching beyond STRS' previous experience

Staff also recommends the Board sponsor or co-sponsor legislation to increase benefits that will provide an adequate retirement benefit as recommended above and encourage the retention of teachers. The following is a list benefits which are generally regarded as greater than STRS and would accomplish the recommended objectives:

- Increased age factor after 60
- Compounded COLA
- Health Benefits coverage
- Optional benefits subject to bargaining
- Final compensation
- Sick leave service credit
- Vested funding source for purchasing power
- Adjustable employer rates

Staff attempted to design a comprehensive set of recommendations that provides increased benefits recognizing the funding constraints consistent with the level or type of benefit currently enjoyed by one or more classifications of PERS members. While the benefits recommended in this item may not be structured precisely as PERS, they do or can accomplish a similar benefit.

The Board should consider the strategy to accomplish the adopted recommendations. Several of the proposed enhancements are currently in legislation in one form or another. For example, AB-2616 contains language which would increase the age factor for retirements effective after age 60. Although this bill proposes to increase the age factor, it does not provide the benefit needed to achieve adequacy nor retain teachers. The Board could request they co-sponsor AB-2616 if it is amended as adopted by the Board. The sponsor of the bill could choose to accept the amendment or not. Although staff may be successful in this process for some of the bills currently in the Legislature, it is unknown at this point if we would be able to accomplish the requested amendments for all the legislation. If not, staff would attempt to find another author.

Alternatively, the Board could approach the authors of the Board's legislation with a request to amend in those benefit increases that might be germane to the current legislation. This would likely involve amendments to most of the Board's sponsored bills.

A third alternative to consider is to sponsor a comprehensive bill that includes all increases adopted by the Board. Staff could request the author of one of the Board's sponsored legislation to amend their bill to include all of the provisions in one comprehensive bill.

Staff has prepared a comprehensive proposal that contains eight issues with recommendations for the Board's consideration. Following the Summary of Benefit Recommendations is a discussion

Summary of Benefit Recommendations

Benefit	**STRS Recommendation**	**Program Costs**	**Administrative Costs**
Age factor (increase beyond age 60) (AB-2616)	Either increase the age factor to the PERS classified formula. A DROP could alternatively be considered.	2.228 percent formula increase .750 percent or .500 for DROP to cover program and administrative costs.	Minor for age factor/significant for DROP.
Compounded Cola at 2 percent (AB-884)	Allow the Teachers' Retirement Board to annually provide an ad hoc benefit increase using "excess" annual earnings as determined by the Consulting Actuary.	No cost. Benefit would be provided within "excess" earnings.	One time cost of $196,000 vs. unknown but likely moderate for ad hoc excess earnings.
Sick leave service credit for post-7/1/80 hires (AB-1102)	Allow sick leave service credit to be creditable for members of STRS after 7/1/80 consistent with AB-1102.	No additional cost. Continue existing funding mechanism of .25 percent from employers.	CB&S - $40,000 ITSD - Unknown
Health Benefit Coverage (SB-1528)	Request to co-sponsor SB-1528. Also, pursue a BCP for appropriation for independent study in the event legislation is vetoed.	No program cost. Paid by participating members.	$200,000 study costs.
Optional Benefits subject to bargaining: a) Golden Handshake	Continue existing Golden Handshake program permanently.	Employer paid; no cost to STRS.	Estimate $500,000 to establish adjustable employer rates
b) Final Compensation Calculated using one year	Amend current program to allow administrators to qualify for one-year final compensation in the same manner as certificated employees.	Employer paid; no cost to STRS.	Minor and absorbable
c) Rule of 85 (AB-88)	Add a provision to allow unreduced benefits to members whose age and service total 85.	Employer paid, no cost to STRS.	CB&S - $75,000 ITSD - 92,000 ACCT - 72,000
SBMA funding	Vest 2.5 percent SBMA funding mechanism.	No additional cost. Continue existing funding.	None.
Use of excess earnings	Excess earnings from active member funds may be used on an ad hoc basis.	No increased cost to use "excess" earnings.	Variable.
"Pop-up"	Recommend Support, if amended on SB-2224.	$30 million one-time cost paid from excess normal cost contribution for 1977-98.	

Issue #1: Deferred Retirement Option Program (DROP) or Increased Age Factor

STRS' Benefits Consultant, Catherine Cole, and STRS' Consulting Actuary, Michael Carter, recommend if a DROP is proposed that it be in lieu of increasing the age factor. The benefit of a DROP is designed to be similar to that of the increased age factor. In addition, for a DROP to be effective and provide retention incentive, it should be applicable when a member has achieved their highest age factor, e.g. age 60 under the current STRS program.

In order to demonstrate the benefits of a DROP in relation to the benefits of increasing the age factor, staff designed three DROP plans and completed a cost/benefit analysis with that of the improved age factor. The conceptual DROP for comparison purposes follows:

Conceptual Design for DROP:

a. Assumes member contributions are not paid during the DROP period:

- member eligible at age 60 (normal retirement age)
- no limit on the period of time a member can participate in the DROP
- 100 percent of the member's monthly "retirement" allowance calculated at the point of entering the DROP will be deposited into their "escrow" account
- the annual improvement factor will also be applied to the "escrow" account
- interest will be applied at the actuarial assumed rate (currently 8 percent)
- continue employer contributions to the TRF to apply to funding the DROP
- disability coverage: member is not eligible for disability coverage during the DROP. If a member becomes disabled, he/she would terminate employment and commence retirement at the monthly allowance calculated upon entering the DROP
- survivor coverage: member would be eligible for active member benefits; e.g. $20,000 lump sum death payment for Coverage B members. Could elect a pre-retirement of an option or eligibility for survivor benefit allowance.
- use the effective date of the DROP to determine eligibility for purchasing power
- if the member does not want to retire at the end of the DROP period, they would accrue a new benefit under the DB Plan. The earlier service would be used to determine eligibility for a benefit.

This DROP design would provide the member with an increased benefit over the current STRS DB plan formula; therefore, it functions similar to increasing the age factor. An additional benefit is that the member would no longer contribute their 8 percent contribution to STRS resulting in an increase in their take home pay during the DROP period.

The consulting actuary has estimated the cost to provide this level of a DROP would be approximately .960 percent. This assumes all members elect to enter the DROP when they first become eligible and that the rate of retirement will increase by the assumed rates of disability. This is done to account for members who become disabled while in DROP but receive the retirement benefit and DROP account instead of a disability benefit.

Assuming 75 percent of the eligible members elect the DROP, the cost decreases to .717 percent. Staff believes this is a reasonable assumption based on the experience of other statewide teacher systems who have experience with a DROP.

The cost also assumes that members will delay retirement at the same rate that was assumed for the increased age factor estimates and that the unfunded actuarial obligation (UAO) is amortized over a 30 year period. A 30 year funding period is reasonable and acceptable for a benefit of this nature.

If the Board were to support the DROP and direct staff to obtain a legislative vehicle, the increased cost could be funded from the funding identified in Item B of Attachment 5. Two items of this funding are permanent funding sources for STRS that are no longer needed for the intended purpose, e.g. sick leave service credit for pre-7/1/80 hires and an ad hoc benefit increase for pre-7/1/79 retirees. Shifting administrative expenses from normal cost to a charge against the fund is an administrative decision subject to the Board's discretion.

The funding for sick leave service credit and the ad hoc benefit increase were not contemplated to terminate when STRS was fully funded; therefore, staff believes they are available for redirection subject to legislative authorization. If, however, the Legislature were to terminate the funding and redirect the money to other purposes, the funds would have to stay within education anyway because the money is within Proposition 98. If it must stay within education, using the funds for increased retirement benefits appears to be appropriate since it is consistent with its original purpose.

b. Alternative DROP design assumes the member contributions continue to the DROP

Staff has developed an alternative DROP which assumes that member contributions are paid and deposited into their DROP account while they are participating in the DROP. All other features of the DROP outlined in a. above would remain the same. The advantage to this design is that the DROP account is greater at termination of the DROP; therefore, resulting in a greater overall benefit. The disadvantage, however, is that the member does not see an increase in take home pay during the DROP period as they would in a. above.

The cost of this DROP design is approximately .500 percent, well within the funding source identified in a. above.

c. Cost neutral DROP

A third alternative would be a DROP that is designed to provide flexibility only but no increased benefit at retirement - a cost neutral DROP. In order to achieve a cost neutral DROP, only 82 percent of the benefit calculated at the commencement of the DROP is credited to the member in the escrow account. The 18 percent difference would stay in the Teachers' Retirement Fund to pay for the DROP. The member would still have a lump sum balance at the time of retirement, however, it would be in a reduced amount.

While a cost-neutral DROP may provide flexibility to receive a portion of the retirement benefit in a lump sum, it is not likely to retain teachers nor does it achieve adequacy since there is no increased benefit. Since a funding source is identified for DROP to provide an increased benefit, a cost-neutral DROP is not recommended at this time. In addition, it does achieve the Board's stated direction to retain teachers and attain adequacy.

Increased Age Factor: Alternatives

a. Modified STRS age formula: 2.35 percent at age 60 and above

To achieve an adequate benefit, as defined, with just an increased age factor would require the factor to be 2.35 percent for all ages from 60 and above. The cost for such an increase would be 4.597 percent with the unfunded actuarial obligation amortized over a 30 year period.

Increasing the age factor in this fashion may achieve adequacy but will not retain teachers past the age of 60 since they would have attained the maximum factor at that time. This alternative is not recommended due to the cost and not attaining the Board's stated objective.

b. PERS formula for school classified

The PERS formula for classified school employees provides an escalating age factor from 60 to 63. Although this formula by itself does not achieve the target replacement ratio at age 60, it would when combined with other benefits. This formula also provides some level of retirement equity between public school teachers and classified employees.

The cost of this formula is 2.228 percent of payroll. The 1 percent funding identified in Item B of Attachment 5 could be directed to fund this benefit with the remainder funded by either an increase in the employer contribution rate or a General Fund appropriation.

Attachment 8 demonstrates the benefit of a DROP assuming no member contributions are contributed during the DROP period as well as a DROP that does assume member contributions are contributed during the DROP. Attachment 9 compares the benefit achieved in a DROP to that of the PERS formula.

As you can see in Attachment 8, a DROP assuming no member contributions increases the member's benefit over the current STRS DB plan formula from 1.9 percent at age 61 to 14.4 percent at age 65 for a member with 25 years of service credit when entering the DROP. The same DROP, but with member contributions, increases the benefit more significantly from 3.4 percent at age 61 to 21.6 percent at age 65. Similar increases are realized for members with 20 years of service credit when entering the DROP.

By comparison, Attachment 9 reflects the difference in benefit between the DROP and the PERS formula for classified employees. While the DROP does not provide as large an increase as the PERS formula for classified members provides at the earlier ages, it does achieve a comparable benefit by age 65.

Conclusion

Both a DROP as proposed in this item or an increased age factor would increase the retirement benefit for STRS members toward achieving the proposed target replacement ratio. The DROP provides added flexibility by providing a portion of the overall benefit as a lump sum while also insuring a monthly benefit. 37 members with over 20 years of service credit requested a refund of their contributions in 96/97 thereby forfeiting any right to a future monthly benefit (unless membership is restored and contributions are redeposited). This statistic is consistent with prior years as well. Although at or near retirement age, these members apparently preferred a lump sum benefit over the monthly allowance even though employer contributions are not included. This data would indicate additional flexibility at retirement and may be preferred by some STRS members.

While an increased age factor will result in some minor implementation costs; the DROP would require more resources to implement and maintain. The DROP may be more easily accomplished, however, because of the minor costs associated with the cost of the program.

Recommendation

Staff believes the Board could prudently support either a DROP, fully funded within available resources, or an increased age factor with the cost funded within available resources and an increase in the employer contribution rate or a General Fund appropriation. The DROP is highly achievable in part because employers will not experience an increase in their rate and does not require additional General Fund contributions.

There has not been sufficient time to discuss the alternatives of this proposal with the employee and employer representatives in detail. Staff recommends the Board direct staff to negotiate the most plausible alternative with all interested parties and pursue the most viable. Staff would report to the Board on the status of these negotiations.

Issue #2: Compounded Cola

There has been significant criticism over the years regarding STRS' simple cost-of-living adjustment (COLA). As demonstrated in Attachment 2, calculating the COLA on a compounded basis rather than simple provides the retiree with less than $7.00 more than the simple COLA after having been retired for 10 years using the assumptions identified. The cost for this very modest benefit, however, is over $140 million a year. This cost/benefit analysis has been updated recently by Watson Wyatt who has confirmed the cost calculations of STRS' prior actuary.

Staff recommends instead the Board consider the use of "excess" earnings of the Teachers' Retirement Fund to provide an annual increase in lieu of the compounded COLA upon the determination that STRS meets or exceeds 100 percent funding. This concept could allow the Board to allocate an ad hoc benefit increase only if the earnings of the Fund exceed a predetermined benchmark, e.g. the actuarial assumed interest rate.

The use of "excess" earnings to provide a benefit in this manner is not unusual. A recent survey of public pension plans conducted by the Public School Retirement System of Missouri indicated, of the 17 respondents, eleven systems allocated a portion of the excess earnings to retirees on an annual basis. The response from the Ohio State Teachers Retirement System states, "Retirees can be awarded an annual supplemental check after the existence of actuarial gain has been determined. Supplemental payments have been made for 17 consecutive years...." In addition, Ohio STRS uses excess earnings to offset the cost of health care coverage provided through Ohio STRS. The supplemental health care fund has grown to $2 billion in 15 years and should preserve retiree health care until the year 2017.

There is a variety of ways to structure such a program but one common element is that the benefit is not a vested benefit within the defined benefit plan. Instead the System would perform an annual actuarial valuation to determine the funding ratio of the Fund. Earnings determined to be in "excess" of that which is needed to maintain full funding and a prudent reserve would be available to allocate to retirees. Only the "excess" earnings on the portion of the portfolio attributable to retirees contributions is recommended for this purpose.

Staff estimated the increase that could have been paid from excess earnings over the last two years assuming we had been shown to be fully funded in 1995. Over the last two valuations, excess investment earnings would have allowed an average 1.9 percent COLA as of each valuation, or $39.00 a month. This estimate also assumed the benefit adjusted the base retirement allowance on which future increases are calculated. This has the effect of compounding, at least in years in which an excess earnings allocation is made. In any event, the retiree would receive no less than the simple COLA currently provided.

There is no direct cost associated with this proposal. Instead any fiscal impact would be considered in the annual valuation process and included in the deliberation of the Board's action in the disposition of the "excess" earnings as they occur.

Referring to Attachment 10, earnings of the TRF indicate funds could have been available for this purpose in nine years of the last 13 years had STRS been fully funded during the same period. While we can't predict future returns, this experience would demonstrate a likelihood that excess earnings will be available for this purpose.

Issue #3: Sick Leave Service Credit for Post-7/1/80 Hires

Current law provides that retirees who were members of STRS before July 1, 1980 shall have unused sick leave at the time of retirement converted to service credit and used in the calculation of their retirement allowance. On average, members have approximately six months of sick leave service credit to be applied to their calculation for a cost of approximately .25 percent of payroll. This benefit is fully funded when STRS attains full funding.

To extend this benefit to all other members of STRS retiring after January 1, 1999 would also cost approximately .25 percent of payroll. This amount is reflected in Item B. of Attachment 5. If a DROP is adopted in Issue #1 above and the cost of a final conceptual remains at or near .750 percent the existing funding for sick leave service could be redirected to continue funding sick leave for all eligible members and result in no increased cost to STRS, employers or the state.

If, however, an increased age factor is adopted in Issue #1, and all funding identified in Item B, of Attachment 5 is directed to funding the increased age factor, staff recommends this benefit become optional to school districts subject to collective bargaining. A more detailed discussion of this concept will be provided in Issue #5 below. Optional benefits subject to collective bargaining would be funded by employers and still result in no additional cost to STRS or the State.

Issue #4: Health Benefit Coverage

Staff presented Senate Bill 1528 to the Board for a position at the April 2, 1998 Board meeting. At that time, staff recommended the Board adopt a Support, if amended position. Staff recommends the Board elevate its position and request to co-sponsor the bill as part of this comprehensive benefits package.

As staff indicated in the discussion of health care, the lack of health care for many of STRS retirees is a serious problem. The Board has indicated an interest in taking a leadership position in resolving this gap in retiree security; therefore, co-sponsoring this bill would be appropriate.

The cost would be borne by the participating members; therefore, would have no additional cost to the System except for some minor up-front costs to study the alternatives and prepare recommendations. The bill is being amended to provide the necessary study costs at the request of the Board.

Issue #5: Optional Benefits Subject to Collective Bargaining

The PERS structure allows contracting agencies to select increased benefits from a "menu" of options authorized by the Legislature. These are benefits that are over and above the core benefits. Core benefits for miscellaneous members are typically the PERS formula, three-year final compensation, and two percent compounded COLA. These core benefits are consistent with the benefits proposed in #1 and #2 above for STRS core benefits.

One-year final compensation is just one of the many benefits that are offered to employers under PERS on an optional basis. Staff recommends that a menu of options be developed for school employers under STRS subject to collective bargaining. This provides employers with the flexibility to increase retirement benefits within available funding and is consistent with PERS flexibility.

There is no program cost to STRS or the State since employers would pay all costs. Currently, employers pay STRS for the cost of some optional benefits by a present value calculation. This procedure was acceptable when STRS only offered one or two options and utilization was low, however, this method of payment would not be efficient if a full-scale optional benefits program is implemented. Under PERS the employer contribution rate is adjusted to fund the additional benefit. This is a much more efficient method because the rate needs to be determined only once and included in the employer contribution rate until the benefit is funded.
The STRS reporting system does not currently allow for this funding method. The current present value method could be utilized until modifications can be made to accommodate an adjustment in the employer rate. Staff recommends, however, that the necessary modifications be a high priority upon completion of START. Preliminary efforts could be commenced prior to the completion of START.

Staff recommends that several benefits be initially included on the menu:

> Golden Handshake - employers have been able to provide a Golden Handshake under STRS for a number of years, however, legislation has always included a sunset date. Although this sunset date has been extended several times, it should be made a permanent option under this proposal. Employers would continue to pay the full costs of providing this benefit.
>
> One-year final compensation - employers currently may provide one-year final compensation subject to collective bargaining. This benefit, however, is only available to classroom teachers under specified conditions. This is both inequitable and has likely kept the utilization very low. The current program should be extended to all employees of a district that bargain for this benefit.

> Rule of 85 - is an early retirement incentive program provided by several public pension plans. Although it appears inconsistent with the direction to provide increased benefits to teachers beyond age 60 in an effort to retain qualified teachers in this period of high demand, nonetheless, some districts are still faced with the need to reduce its workforce. This is a reasonable option to make available to employers so they can have the flexibility to meet their workforce needs in a variety of ways.

Issue #6: Supplemental Benefits Maintenance Account Funding

SB-1026, statutes of 1997, effectively committed the General Fund to the current funding stream for purchasing power payments. The statute provides that should the GF contribution of 2.5 percent of payroll exceed the amount needed to provide 75 percent purchasing power and maintain a three year reserve, the excess funding shall revert to the General Fund. Although the statutes did not vest the 2.5 percent of payroll funding mechanism, the calculations and projections conducted at the time the Legislature was considering SB-1026, indicate that the entire 2.5 percent will be required every year to support 75 percent purchasing power. Therefore, vesting this funding stream will not increase projected costs for SB-1026.

Vesting the funding stream as proposed in this item, will provide much needed security to retirees that funding for purchasing power will continue permanently. All provisions of SB-1026 remain the same.

Although not funded in this fashion, PERS does have a vested funding mechanism for purchasing power benefits. Therefore, precedence exists to support the concept in this proposal.

Issue #7: Use of Excess Earnings

Issue #2, proposes to allocate excess earnings attributable to retiree funds for ad hoc benefit increases. The same concept can apply to excess earnings attributable to active member funds. However, these excess earnings cannot be used to fund a vested benefit because excess earnings are not known or guaranteed on an annual basis. Although a specific purpose is not yet identified, supporting the concept will allow staff to develop other alternatives for the Board's consideration.

Issue #8: Pop-up

Staff previously presented to the Board the study on Joint and Survivor Options. The specific objective of the study was to determine the cost and impact to STRS if certain retired members were allowed to change their option coverage for:

Part 1: Members who retired under Option 2, 3, 4, or 5 before January 1, 1991 and changed to Option 6 or 7 if the beneficiary was deceased at a certain date.

Part 2: Members who retired under Option 4 or 5 before January 1, 1991 and changed to Option 6 or 7 if the beneficiary was not deceased at the time of the change.

The provisions of Part 2 have already been adopted by the Board as part of its legislative agenda for 1998 and is included in legislation. The cost of Part 2 is paid by the retirees through a reduction in their retirement allowance.

Part 1 was identified to incur a $31 million cost to pop-up to the unmodified allowance retirees whose beneficiary has predeceased them. Previously there has not been an acceptable funding source, however, with the excess contributions existing from the reduction in normal cost for 1997-98, the full amount for this benefit is available at this time. Therefore, staff recommends the Board support this bill and fund it with the excess normal cost contributions for 1997-98.

STATE TEACHERS' RETIREMENT SYSTEM
MATRIX OF COST OF PROPOSED BENEFIT IMPROVEMENTS
JUNE 1998

Assumptions: Unfunded Actuarial Obligation proposed to be amortized over a 30 year funding period
Increased cost based upon Actuarial Valuation Dated 6/30/97

Benefit Improvement	Bill Number	Increased Cost to Plan as a percentage of payroll		Proposed Funding	Who will Benefit	
					Active	Retired
Increased Age Factor: - *As Amended:*[1] *"PERS" formula:* *2.0% at 60 - 2.418% at 63*	AB-2616	Normal Cost UAO Total	1.100% 1.128% 2.228%	No funding source identified in the legislation.	17,408 aged 61 and older	
- Alternate factors: "Other" factors: 2.0% at 60 - 2.5% at 65		Normal Cost UAO Total	1.190% 1.234% 2.424%			
Rule of 85	AB-88	Normal Cost UAO Total	0.290% 0.429% 0.719%	Employer to pay the actuarial present value of the increase in benefits.	12,647	
One Year Final Compensation, Mandatory Statewide		Normal Cost UAO Total	0.905% 0.734% 1.639%		278,967[2]	
Unused Sick Leave	AB-1102	Normal Cost UAO Total	0.180% 0.092% 0.272%	Employer to pay amount fixed and determined by the Board, not to exceed the actuarial estimated cost of the benefit.	262,976	

[1] *Information in Italics has been updated since the May Board meeting.*
[2] Does not include non-vested members.

Benefit Improvement	Bill Number	Increased Cost to Plan as a percentage of payroll	Proposed Funding	Who will Benefit Active	Retired
Mandatory Statewide Early Retirement Incentives: Golden Handshake 30 & Out with 2%				 278,967 3,086	
Compounded 2% COLA	AB-884	Normal Cost 0.320% UAO 0.624% Total 0.944%	No funding source identified in the legislation.		150,805
Ad Hoc Excess Earnings COLA		Over the last 2 valuations, excess investment earnings have been calculated to allow an average *1.95%* COLA as of each valuation.	Excess investment earnings as determined by the Actuary at valuation		150,805
80% Purchasing Power Protection would extend to everyone retired prior to 1984		$49,508,528	Supplemental Benefit Maintenance Account (SBMA)		56,747 including 10,967 more than at 75%
Vesting SBMA contribution rate		No additional cost for the next 30 years			150,805 overtime
Final Compensation for LAUSD;	AB-2766	-0-	LAUSD to fund any increased benefit due to increased final compensation		4,500
"Pop-Up" to Unmodified Allowance	SB-2224	$31 million total one time cost	Revenue from school lands to fund "pop-up".		2,509

Benefit Improvement	Bill Number	Increased Cost to Plan as a percentage of payroll	Proposed Funding	Who will Benefit Active	Who will Benefit Retired
Health Insurance for STRS Members	SB-1528	N/A	Fully funded by member participants		
Reduction in Member Contribution Rate		Varies (depending upon level of reduced contribution)			

STATE TEACHERS' RETIREMENT SYSTEM
MATRIX OF INCREASED BENEFIT

Assumptions: Member aged 60 with 25 years of service and 3 Year Average Final Compensation of $4,000 = Unmodified Allowance of $2,000 per month	A Monthly Increases Listed Individually	B 1 Year Final Compensation plus Increases from Column A	C Unused Sick Leave Service Credit plus Increases from Column B	D Statewide Golden Handshake plus Increases from Column C
Basic Monthly Increase to the $2,000 unmodified monthly allowance:		83	58	160
2.134% at age 61 (AB-2126 & PERS formula)	134	217	275	435
2.418% at age 63 (AB-2126 & PERS formula)	418	501	559	719
2.3% at 63 ("Other")	300	383	441	601
2.5% at 65 ("Other")	500	583	641	801
Rule of 85 - retiring at age 55	720	803	861	1,021
1 Year Final Compensation	83		141	301
Unused Sick Leave Service Credit	58	141		301
Statewide Golden Handshake	160	243	301	
Statewide 30 and out with full benefit, age 56	576	659	717	877

STATE TEACHERS' RETIREMENT SYSTEM
MATRIX OF INCREASED BENEFIT

Assumptions: Member aged 60 with 25 years of service and 3 Year Average Final Compensation of $4,000 = Unmodified Allowance of $2,000 per month	A Monthly Increases Listed Individually	B Compounded 2% COLA plus Increases from Column A	C 80% Purchasing Power Protection plus Increases from Column B	D Final Compensation for LAUSD plus Increases from Column C	E "Pop-Up" to Unmodified Allowance plus Increases from Column D	F Ad Hoc Excess Earnings COLA plus Increases from Column E
Basic Monthly Increase to the $2,000 unmodified monthly allowance:		0.80 - 6.87	73	83	88	39
Compounded 2% COLA (AB-884)	0.80 - 6.87 per month after 10 years		74 - 80	157 - 163	245 - 251	284 - 290
Ad Hoc Excess Earnings COLA	39	40 - 46	113 - 119	196 - 202	284 - 290	
80% Purchasing Power Protection	73	74 - 80		157 - 163	245 - 251	284 - 290
Final Compensation for LAUSD (AB-2766)	83	84 - 90	157 - 163		245 - 251	284 - 290
"Pop-Up" to Unmodified Allowance (SB-2224)	88	89 - 95	162 - 168	245 - 251		284 - 290

Revised 4/30/98 08:30am

COMPARISON

PERS State Employees -- Tier I - Proposed Modified First Tier -- Tier II

Benefit Features	First Tier	Modified First Tier (MFT)	Second Tier
Participation Criteria	Closed to new employees.	Voluntary for new hires and current members.	Mandatory for new hires since July 1, 1991.
Vesting - Service Retirement - Disability Retirement Allowance	5.000 years credited service 5.000 years credited service 5.000 years credited service	Same as First Tier, and current Second Tier members who elect into MFT may use their accrued service to vest. Same as First Tier Same as First Tier	10.000 years credited service or 5.000 years of credited service earned prior to January 1, 1985 10.000 years credited service or 5.000 years of credited service earned prior to January 1, 1985 10.000 years of credited service or at least 5.000 years earned prior to January 1, 1985
Basic Death Benefit	Refund of contributions, plus interest, and up to 6 months' salary (50% of your earnable salary for the 12 months just before your death)	Same as First Tier	$5,000 plus 6 months' salary (50% of your earnable salary for the 12 months just before your death)
Normal Retirement Age	60	60	65
Minimum Retirement Age	Age 50	Same as First Tier.	Age 55, but members who were vested as of 1/1/1985 may retire at age 50.
Benefit Formula Prior to Age 60 (Normal Retirement Age): (Service Retirement)	1.092 @ age 50 1.156 @ age 51 1.224 @ age 52 1.296 @ age 53 1.376 @ age 54 1.460 @ age 55 1.552 @ age 56 1.650 @ age 57 1.758 @ age 58 1.874 @ age 59	1.092 @ age 50 1.156 @ age 51 1.224 @ age 52 1.296 @ age 53 1.376 @ age 54 1.460 @ age 55 1.552 @ age 56 1.650 @ age 57 1.758 @ age 58 1.874 @ age 59	0.500 @ age 50* 0.550 @ age 51* 0.600 @ age 52 0.650 @ age 53 0.700 @ age 54 0.750 @ age 55 0.800 @ age 56 0.850 @ age 57 0.900 @ age 58 0.950 @ age 59 *5 years of credited service earned prior to 1/1/85

Benefit Features	First Tier	Modified First Tier (MFT)	Second Tier
Benefit Formula At Normal Retirement Age (Age 60) (Service Retirement)	2% @ 60 (2 x years of credited service x final compensation)	2% @ 60 (2 x years of credited service x final compensation)	1.25% @ 65 (1.25 x years of credited service x final compensation)
Age Formula (Factor) After Age 60 (Service Retirement	2.134 @ age 61 2.272 @ age 62 2.418 @ age 63	Same as at age 60 -- 2% cap	1.000 @ age 60 1.050 @ age 61 1.100 @ age 62 1.150 @ age 63 1.200 @ age 64 1.250 @ age 65
Rule of 85	No	No	No
Final Compensation	Highest average monthly pay rate for 12 consecutive months.	Highest average monthly pay rate for 36 consecutive months.	Same as First Tier.
Employee Contribution Rate	5% of monthly pay in excess of $513.	5% of monthly pay in excess of $133.33.	None required.
Disability Retirement	Must be vested and benefit will depend on age and amount of PERS service.	Same as First Tier.	Same as First Tier.
Death Benefits	Basic Death, Option 2, Alternative Death, and 1959 Survivor Benefits.	Same as First Tier.	Same as First Tier except there may not be any member contributions.
Credit for Unused Sick Leave	Allowed for PERS service.	None for service under MFT.	Same as First Tier.
Cost of Living Adjustment	Up to 2%, annually compounded	Same as First Tier.	3%, annually compounded.
Purchasing power protection of 75% of original allowance	Provided.	Provided.	Provided.
Social Security	Yes	Yes	Yes

Revised 4/20/98 10:30am

COMPARISON
STRS - PERS State Employees - PERS Classified School Employees
(Tier I) - Non-Safety – (Tier II) – Non-Safety

	STRS	**PERS: Classified School Member**	**PERS: State Miscellaneous (Non-safety) (Tier I)** *Closed to New Members*	**PERS: State Miscellaneous (Non-safety) (Tier II)** *Mandatory for new hires 7/1/91*
Eligibility for Membership	- All certificated and faculty employees in public schools (K-14) whose basis of employment is 50% or more (mandatory membership) - Part-time and substitute certificated and faculty employees hired to work less than one-half time may elect to be a member	- Non-teaching, noncertificated school employees working one-half time or more - Part-time non-teaching employees working less than one-half time may not be a member	- Non-safety state employees working one-half time or more - Non-elected legislative employee - Employees working less than one-half time may not be a member	- Non-safety state employees working one-half time or more - Non-elected legislative employee - Employees working less than one-half time may not be a member
Normal Retirement Age	60	60	60	65
Vesting Requirement for:				
- Service Retirement	5.000 years credited service Note: 30.000 years service credit required for retirement between ages 50-55	5.000 years credited service	5.000 years credited service	10.000 years credited service or 5.000 years of credited service earned prior to January 1, 1985
- Disability Retirement Allowance	5.000 years credited service or 1.000 year credited service for disability resulting from a violent act perpetrated during the course of one's employment	5.000 years credited service or 1.000 year credited service for disability resulting from a violent act perpetrated during the course of one's employment	5.000 years credited service	10.000 years of credited service or at least 5.000 years earned prior to January 1, 1985

	STRS	**PERS: Classified School Member**	**PERS: State Miscellaneous (Non-safety) (Tier I)** *Closed to New Members*	**PERS: State Miscellaneous (Non-safety) (Tier II)** *Mandatory for new hires 7/1/91*
- Survivor Benefits	1.000 year service credit	Benefits are payable based on whether or not the member was eligible for retirement at the time of death, e.g., at least age 50 with 5.000 years of service credit		Benefits are payable based on whether or not the member was eligible for retirement at the time of death e.g., at least age 55 with 10.000 years of service credit
- Basic Death Benefit	A Lump-Sum Death payment is payable to the designated beneficiary(ies), under both Coverages A ($5,227) and B ($20,908). The amount depends on the member's coverage and whether the death occurred before or after retirement.	The death benefit amount is graduated, with the full amount payable after six years of service credit.	$5,000 plus 6 months' salary (50% of your earnable salary for the 12 months just before your death)	$5,000 plus 6 months' salary (50% of your earnable salary for the 12 months just before your death)
Benefit Formula Prior to(Normal Retirement Age): (Service Retirement)	1.10 @ age 50 1.16 @ age 51 1.22 @ age 52 1.28 @ age 53 1.34 @ age 54 1.40 @ age 55 1.52 @ age 56 1.64 @ age 57 1.76 @ age 58 1.88 @ age 59	1.092 @ age 50 1.156 @ age 51 1.224 @ age 52 1.296 @ age 53 1.376 @ age 54 1.460 @ age 55 1.552 @ age 56 1.650 @ age 57 1.758 @ age 58 1.874 @ age 59	1.092 @ age 50 1.156 @ age 51 1.224 @ age 52 1.296 @ age 53 1.376 @ age 54 1.460 @ age 55 1.552 @ age 56 1.650 @ age 57 1.758 @ age 58 1.874 @ age 59	0.500 @ age 50* 0.550 @ age 51* 0.600 @ age 52* 0.650 @ age 53* 0.700 @ age 54* 0.750 @ age 55 0.800 @ age 56 0.850 @ age 57 0.900 @ age 58 0.950 @ age 59 1.000 @ age 60 *5 years of credited service earned prior to 1/1/85.
Benefit Formula At Normal Retirement Age (Service Retirement)	2% @ 60 (2 x years of credited service x final compensation)	2% @ 60 (2 x years of credited service x final compensation)	2% @ 60 (2 x years of credited service x final compensation)	1.25% @ 65 (1.25 x years of credited service x final compensation)
Age Formula (Factor) After Age 60 (Service Retirement)	Same as at age 60 - 2%	2.134 @ age 61 2.272 @ age 62 2.418 @ age 63	2.134 @ age 61 2.272 @ age 62 2.418 @ age 63	1.050 @ age 61 1.100 @ age 62 1.150 @ age 63 1.200 @ age 64 1.250 @ age 65

	STRS	**PERS: Classified School Member**	**PERS: State Miscellaneous (Non-safety) (Tier I)** *Closed to New Members*	**PERS: State Miscellaneous (Non-safety) (Tier II)** *Mandatory for new hires 7/1/91*
Rule of 85	No	No	No	No
Final Compensation	Highest average compensation for 36 consecutive months. Note: Districts can choose to provide final compensation averaged over 12 consecutive months	Highest average compensation for 36 consecutive months. No option to choose compensation averaged for 12 consecutive months	Highest average compensa tion for 12 consecutive months	Highest average compensation for 12 consecutive months
Disability Formula	50% of final compensation (some exceptions in Coverage A)	1.8% x years of credited service x final compensation Benefit may be improved to 33-1/3% for service credit between 10 & 18-1/2 years	1.8% x years of credited service x final compensation Benefit may be improved to 33-1/3% for service credit between 10 and 18-1/2 years	A monthly allowance of 1.125% of final compensation for each year of service improved under certain conditions to 33-1/2% of final compensation, applicable to members with at least 10.000 years of service credit
Automatic Cost-of Living Adjustment	2% annual simple	2% annual compounded	2% annual compounded	Fixed 3% annual compounded
Purchasing Power Adjustment	75%	75%	75%	75%
Credit for Unused Sick Leave	Yes - for persons who were members prior to 7/1/80	Yes - for persons who were members prior to 7/1/80	Yes - for all members regardless of date of hire	Yes
Golden Handshake: 2 Years additional Service Credit	Yes	Yes	Yes	Yes
Health Benefits After Retirement	Provided only on a district-by-district basis. Districts may choose to provide PEMHCA coverage	Provided only on a district-by-district basis. Districts may choose to provide PEMHCA coverage	Yes (If a member retires either 120 days of separation of employment with the requisite 5, 10 or 20 year vesting requirement)	Yes (If a member retires either 120 days of separation of employment with the requisite 5, 10 or 20 year vesting requirement)

	STRS	**PERS: Classified School Member**	**PERS: State Miscellaneous (Non-safety) (Tier I)** *Closed to New Members*	**PERS: State Miscellaneous (Non-safety) (Tier II)** *Mandatory for new hires 7/1/91*
Purchase of Service Credit				
- Out-of-State Service	Yes, Effective 1-1-99 for public school employment	No	No	No
- Military	Yes	Yes	Yes	Yes
- Redeposit of Withdrawn Contributions	Yes	Yes	Yes	Yes
Miscellaneous Issues				
- Ability to Adjust Employer Contri-bution Rate	No	Yes	Yes	Yes
- Current Contri-bution Rates				
- Employee	8%	In Social Security, 7% of salary over $133.33 No Social Security, 7% of salary	In Social Security, 5% of salary over $513. No Social Security, 6% of salary over $317.	In Social Security, none No contributions by employee
- Employer	8.25%	0% (as of FY 1998/99)	Varies based on actuarial calculations (8.541% as of FY 1998/99)	Varies based on actuarial calculations (6.437% as of FY 1998/99)
Social Security	No	Yes	Yes	Yes

Outline of Current Funding Sources and Variables

I. **Ongoing**

	Source	Percent of Payroll	Dollar Amount for 1998-99
A.	1. Elder Full Funding current amortization period three years	4.3%	$645,555,000
	2. Reamortize the Unfunded Obligation funded entirely by Elder Full Funding over an extended period and utilize the balance for new benefits:		
	10-year period Revised Funding Rate: 1.266% - Balance Available =	2.664%	435,564,000
	20-year period Revised Funding Rate: 0.707% - Balance Available =	3.223%	526,960,500
	30-year period Revised Funding Rate: 0.524% - Balance Available =	3.406%	556,881,000

OUTSIDE OF PROPOSITION 98

B. Amount outside of Elder Full Funding derived from :

Reduction in normal cost from 16.00% to 15.79%	.21%	34,335,000
Shifting administrative expenses from normal cost to a charge against the fund. Consistent with PERS funding of administrative expenses. No legislation required. Administrative action by the Board.	.25%	40,875,000
Current unused sick leave funding available when TRF 100% funded.	.25%	40,875,000
Current ad hoc funding available when TRF 100% funded.	.307%	50,194,500
Totals	1.017%	166,279,500

INSIDE OF PROPOSITION 98

C.	Annual school lands revenue displayed as a percent of payroll	.0127%	2,076,450

D. Increased employee and/or employer contributions in some stated amount.

II. **One-Time**:

	Source	Amount
A.	School Land Bank Fund	$20 million
B.	Excess contribution for normal cost in 1997-98 fiscal year **Proposed: Fund SB-2224, Lee**	$30 million

@ Estimated 1998-99 Pay $16.350 billion

Comparison of Retirement Systems Not Covered by Social Security
(Averages At Retirement)

	Colorado	Illinois	Ohio	Louisiana	Texas	Average
Average Age	60	61	58	57	62	60
Average Years Service Credit	20	24	30	26	29	26
Normal Retirement Age	60	60	60	60	60	60

Comparison of Retirement Systems Covered by Social Security
(Averages At Retirement)

	Arizona	New Mexico	Oregon	Washington	Average
Average Age	61	58	57	55	58
Average Years Service Credit	22	25	20	28	24
Normal Retirement Age	65	65	58 60**	60 65**	62

**Tier II

California State Teachers' Retirement System -- STRS

Retirement Benefits
Adequacy and Comparison Study

Demographics

Age at retirement	60	65
Service at retirement	25	30
Final Salary	47,500	57,800
Final Average Salary	45,700	55,600

Retirement Adequacy and Retirement Ratios

	Monthly Benefit @ 60	Replacement Ratio @ 60	Replacement Ratio @ 60		Monthly Benefit @ 65	Replacement Ratio @65	Replacement Ratio @65	
STRS	1,900	48.0%			2,780	57.7%		
403(b) Program (1)	440	11.1%			780	16.2%		
STRS, plus 403(b)	2,340	59.1%			3,560	73.9%		
Modified STRS (2)	2,240	56.6%	67.7%	[w/ 403(b)]	3,270	67.9%	84.1%	[w/ 403(b)]
STRS w/ DROP	1,900	48.0%	59.1%	[w/ 403(b)]	3,180	66.0%	82.2%	[w/ 403(b)]
STRS w/ DROP*	1,900	48.0%	59.1%	[w/ 403(b)]	3,380	70.2%	86.4%	[w/ 403(b)]

*including member contributions

	Monthly Benefit @ 60	Replacement Ratio @ 60	Monthly Benefit @ 65	Replacement Ratio @65
STRS	1,900	48.0%	2,780	57.7%
STRS, plus 403(b)	2,340	59.1%	3,560	73.9%
PERS Classified (w/ SS)*	2,950	74.5%	4,710	97.8%
PERS Tier II (w/ SS)*	2,040	51.5%	3,160	65.6%
PERS Mdf. 1st Tier (w/ SS)*	2,950	74.5%	4,130	85.7%

* Social Security (SS) begins at age 62.

(1) The 403(b) annuity assumes an 8% rate of return. The member is assumed to contribute 3% of salary each year.
(2) The adequacy levels are assumed to be 70% for age 60 and 85% for age 65 with 25 and 30 years, respectively.
In order to achieve the adequacy levels (assuming 3% contributions to the 403(b) by members, the STRS benefit multiplier would need to be 2.35 rather than the current 2.0. That change would provide 67.7% at 60 and 84.1% at 65.
Modified STRS as shown above uses the 2.35 multiplier in place of the 2.0 multiplier for all ages 60 and after.

Retirement Benefits
Adequacy and Comparison Study

Comparison of Benefits -- STRS versus STRS w/ DROP (no member contributions during DROP)
(age 60 with 25 years of service)

			Monthly Benefits					
Age/Service	**Final Salary**	**Average Salary**	STRS (Current Formula)	STRS w/ DROP				STRS w/ DROP % Increase
60/25	47,500	45,700	1,900	1,900	Escrow Account	Annuity Value	Total Annuity	
61/26	49,400	47,500	2,060	1,940	23,700	160	2,100	1.9%
62/27	51,400	49,400	2,220	1,980	49,800	350	2,330	5.0%
63/28	53,500	51,400	2,400	2,020	78,500	560	2,580	7.5%
64/29	55,600	53,500	2,590	2,060	110,000	800	2,860	10.4%
65/30	57,800	55,600	2,780	2,100	144,500	1,080	3,180	14.4%

NOTE: The DROP plan credits the escrow account with 8% interest. Assumes no Member contributions during the DROP period.
The 2% COLA is applied during the DROP period.

Comparison of Benefits -- STRS versus STRS w/ DROP (member contributions continue during DROP)
(age 60 with 25 years of service)

			Monthly Benefits					
Age/Service	**Final Salary**	**Average Salary**	STRS (Current Formula)	STRS w/ DROP				STRS w/ DROP % Increase
60/25	47,500	45,700	1,900	1,900	Escrow Account	Annuity Value	Total Annuity	
61/26	49,400	47,500	2,060	1,940	27,800	190	2,130	3.4%
62/27	51,400	49,400	2,220	1,980	58,500	410	2,390	7.7%
63/28	53,500	51,400	2,400	2,020	92,300	660	2,680	11.7%
64/29	55,600	53,500	2,590	2,060	129,500	950	3,010	16.2%
65/30	57,800	55,600	2,780	2,100	170,400	1,280	3,380	21.6%

NOTE: The DROP plan credits the escrow account with 8% interest. Assumes Member contributions **continue** during the DROP period.
The 2% COLA is applied during the DROP period.

California State Teachers' Retirement System -- STRS

Retirement Benefits
Adequacy and Comparison Study

Comparison of Benefits -- STRS versus PERS Classified (without Social Security)

			Monthly Benefits		Present Value		
Age/Service	Final Salary	Average Salary	STRS Current Formula	PERS Classified	STRS	PERS Classified	% increase
60/25	47,500	45,700	1,900	1,900	278,300	286,400	2.9%
61/26	49,400	47,500	2,060	2,200	296,600	325,800	9.8%
62/27	51,400	49,400	2,220	2,530	314,000	367,600	17.1%
63/28	53,500	51,400	2,400	2,900	333,000	413,100	24.1%
64/29	55,600	53,500	2,590	3,130	352,200	436,600	24.0%
65/30	57,800	55,600	2,780	3,360	370,000	458,400	23.9%

NOTE: PERS Classified uses Average Salary and has a 2% compound COLA formula. Social Security is not included.

Comparison of Benefits -- STRS w/ DROP (with member contributions) versus PERS Classified (without Social Security)

			Monthly Benefits			Present Value			
Age/Service	Final Salary	Average Salary	STRS Current	STRS w/ DROP	PERS Classified	STRS Current	STRS W/ DROP	PERS Classified	PERS vs STRS w/ DROP % incr.
60/25	47,500	45,700	1,900	1,900	1,900	278,300	278,300	286,400	2.9%
61/26	49,400	47,500	2,060	2,130	2,200	296,600	306,700	325,800	6.2%
62/27	51,400	49,400	2,220	2,390	2,530	314,000	338,000	367,600	8.8%
63/28	53,500	51,400	2,400	2,680	2,900	333,000	371,900	413,100	11.1%
64/29	55,600	53,500	2,590	3,010	3,130	352,200	409,300	436,600	6.7%
65/30	57,800	55,600	2,780	3,380	3,360	370,000	449,900	458,400	1.9%

NOTE: PERS Classified uses Average Salary and has a 2% compound COLA formula. Social Security is not included.

Comparison of Benefits -- STRS w/ DROP (no member contributions) versus PERS Classified (without Social Security)

			Monthly Benefits			Present Value			
Age/Service	Final Salary	Average Salary	STRS Current	STRS w/ DROP	PERS Classified	STRS Current	STRS w/ DROP	PERS Classified	PERS VS STRS w/ DROP % incr.
60/25	47,500	45,700	1,900	1,900	1,900	278,300	278,300	286,400	2.9%
61/26	49,400	47,500	2,060	2,060	2,200	296,600	296,600	325,800	9.8%
62/27	51,400	49,400	2,220	2,220	2,530	314,000	314,000	367,600	17.1%
63/28	53,500	51,400	2,400	2,400	2,900	333,000	333,000	413,100	24.1%
64/29	55,600	53,500	2,590	2,590	3,130	352,200	352,200	436,600	24.0%
65/30	57,800	55,600	2,780	2,780	3,360	370,000	370,000	458,400	23.9%

NOTE: PERS Classified uses Average Salary and has a 2% compound COLA formula. Social Security is not included.

Growth in STRS' Returns